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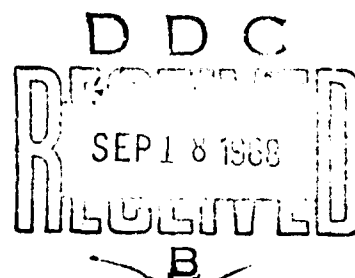
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DEPARTMENT OF THE ARMY
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CLINICAL ASPECTS OF ORNITHOSIS IN CHILDHOOD

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By L. Heim

In the pediatric literature of recent years there are only relatively meager reports of the clinical picture of ornithosis (Strobel, Bernon et al., Gardborg and Lerche, Muller and Mansweiler, Breton, et al). This must surely be partially conditioned by the fact that when transmitted from animal to man the disease usually remains limited to single individuals and when transmitted from person to person it usually loses its infectiousness after only a single passage, so a spread worthy of being called an epidemic hardly occurs. There is a discrepancy, however, between the rarity of the disease and the world-wide distribution of the ornithosis virus in the animal kingdom. From researches of recent years we know that the virus by no means attacks only parrot species, and that even healthy animals are involved as carriers of the virus. So far transmissions by herring gulls (Meyer and Eddie), wild doves (Winsser), herons (Lepine and Sautter), and also by chickens and domesticated pigeons and ducks have been described. On the basis of the circumstances of childhood (playing with poultry and loose feathers, breathing feather dust, etc.) one might actually assume an especially great frequency of infection among children. Of course diagnosis of ornithosis in childhood does offer special difficulties, since it is well known that the disease commonly runs a milder and consequently a less characteristic course in young individuals. We recently had an opportunity to observe three cases of the disease which in spite of fairly extensive processes in the lungs were so poor in symptoms that a description of them seems justified. We are therefore inclined to assume that numerous cases run a clinically unapparent course or are interpreted as common infectious diseases.

Case 1, child S.G., File No J 343/60.

The 10 1/2 year old girl, normally developed for her age, was admitted to the clinic 8 April 1960 with afebrile temperature and in good general condition. Anamnesis indicated that the child had stayed until a week before in a children's convalescent home in Upper Bavaria, where she had been for 6 weeks' rest because of general nervousness. Toward the end of her stay at the home a number of children became somewhat ill. The patient herself had had a slight fever for two days and for that reason stayed in bed for that long. Afterwards the child felt well again. After going home from the institution the ordinarily very lively child was noticeably tired and occasionally coughed a little. The family doctor examined her and found nothing out of the way. But since the blood sedimentation showed a greatly accelerated value, a chest X-ray was called for. As this showed an extensive infiltrate, she was immediately sent to the clinic with suspicion of a fresh specific pulmonary lesion. — In examining the child upon her admission we were also unable to find any abnormalities except for a mild diffuse bronchitis. The sedimentation, at 72/109, was considerably accelerated and the blood picture was unremarkable. The temperature both upon admission and throughout her stay at the clinic was afebrile. X-ray showed a homogeneous opacity in the left central field about the size of the palm of the hand, decreasing in extent and intensity from the periphery toward the center. (Figure 1.) The other parts of the lungs were free of turbidity, the diaphragm

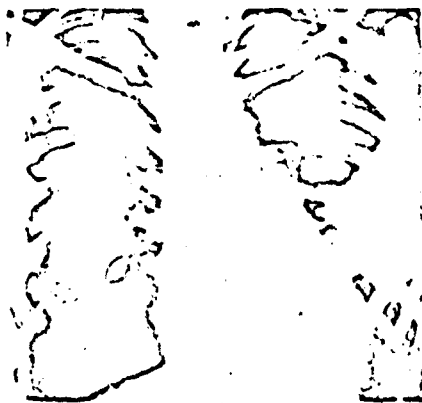


Figure 1. Case 1, 9 April 1960.



Figure 2. Case 1, 20 April 1960.

smoothly outlined and unrestricted in mobility. Percutaneous tuberculin tests (Moro's method) and intracutaneous tests (Mendel-Mantoux) came out negative up to a concentration of 1:100. On the other hand the CFR (complement fixation reaction) for ornithosis (Hygiene Institute of the University of Würzburg, Dir. Prof. Dr. Sonnenschein) gave a titre of 1:80 +++, 1:160 ++, 1:320 ±. The diagnosis of ornithosis could thus be regarded as confirmed on the basis of this high titre. The Wassermann reaction, also checked, came out negative. On the ground of the rather extensive indications in the lungs we decided on an antibiotic treatment. Since we had previously had good results in cases of therapy-resistant pneumonia (Heim) with a combination tetracyclin-oleandomycin preparation (Sigmamycin Pfizer), in this case we administered 1 g of Sigmamycin a day for 10 days. Under this therapy the very discrete symptoms (lassitude, coughing) rapidly declined. Sedimentation dropped to a figure of 5/8 and the X-ray showed a normalizing tendency (Figure 2). It seems worth noting that the CFR titre in spite of the antibiotic treatment went on up to values of 1:640 +++, 1:1280 +.

In the literature usually an early drop in the titre is reported after antibiotic treatment (Meyer and Eddie, Müller and Mansweiler, and others).

After a total of six weeks' stay at the clinic the child could be sent home free of symptoms. The CFR titre at the time of dismissal was still 1:160 +++, 1:320 +++, 1:640 ±.

Case 2, patient S.I., File No J 443/60.

The nine-year-old girl, normally developed for her age, was admitted 19 days after her sister (case 1), also with afebrile temperature. — Anamnesis indicated that the girl had had fever and stayed in bed for one day at the same time as her sister at the children's convalescent home. Afterwards she was perfectly well again. At home aside from a slight cough no particular symptoms of illness were observed. But since the sister's illness could be diagnosed with certainty as ornithosis, X-ray examinations were done of all members of the family. Infiltrative phenomena were observed in this girl, too, and she was immediately sent to the clinic. — When we examined the child upon admission, we found that she too was in good general condition, apart from greatly enlarged tonsils, enlarged submaxillary glands, and râles and wheezes over the lung. —



Figure 3. Case 2, 29 April 1960.



Figure 4. Case 2, 12 May 1960.

The sedimentation, at 43/82, was definitely accelerated; the blood picture was unremarkable. X-ray showed a greatly coarsened and dilated hilus on the right, which was striped toward the bottom with a fan-shaped pattern. There were also numerous small flecks of shading, partially running together, extending from the hilus to the periphery in the area of the right central field (Figure 3). Percutaneous and intracutaneous tuberculin tests came out negative. The CFR for ornithosis in this case gave a titre of 1:160 +++, 1:320 +. The Wassermann reaction was negative. Temperatures remained afebrile throughout her entire stay at the clinic. Under the sigmamycin treatment used in this case, too, the blood sedimentation and X-ray (Figure 4) showed a rapid normalization tendency. The CFR ornithosis titre was unchanged in level after the antibiotic treatment.

We did not succeed in finding out the source of the two children's infection. It was learned in anamnesis that the family had kept a budgerigar, but it had flown away in January 1960, i.e. three months before the symptoms appeared. Since the incubation of ornithosis is given (according to Kikuth) as 8 to 14 days, the infection could be definitely placed during the stay at the convalescent home.

cent home. The mother of the two sisters was also given clinical treatment about eight weeks after the children, with serologically demonstrated indications of ornithosis. The contagion surely took place through contact with the sick children. The relatively great interval is explained by the fact that as the illness in this case ran a very mild course it was not recognized in its initial stages.

Case 3, child V.J., File No J 571/1960.

The 12-year-old, tall, strong girl, well developed for her age, was admitted to the clinic on 25 May 1960. Anamnesis indicated that the girl had never been seriously ill except for a case of pneumonia at the age of three and measles at four. For about three months it had been noticeable that the patient had been tired and sleepy a great deal of the time. Otherwise she had felt quite well and shown no other symptoms. As the unexplained lassitude hung on, she was sent to the clinic under suspicion of an incipient specific process. — When she was examined upon admission a suggestion of damping was found above the right lower field, and also cleft tonsils and enlarged submaxillary glands on both sides. Sedimentation 42/74 mm. Blood picture unremarkable. X-ray showed a



Figure 5. Case 3, 27 May 1960



Figure 6. Case 3, 8 June 1960

broad basal shaded zone in the region of the right lower field (Figure 5). The percutaneous and intracutaneous tuberculin tests came out definitely negative. Temperatures both upon admission and throughout her stay at the clinic were afebrile. The CFR for ornithosis gave a titre of 1:20 +++, 1:40 ++. Wasserman reaction negative. All other agglutination reactions came out negative. As a secondary finding a sinusitis maxillaris of the left side was observed; it was conservatively treated with "Privin" and light baths for the head. For the pulmonary symptoms, which were interpreted on the basis of the positive titre as ornithosis, a tetracyclin treatment was used. A check-up X-ray of the lungs after ten days showed complete regression of the pulmonary symptoms (Figure 6); the general condition was also completely satisfactory, and the child no longer complained of being tired. — A re-check of the ornithosis CFR shortly before she left the clinic showed a rise in titre in this case, too (1:40 +++, 1:80 +++, 1:160 +). This seems to us remarkable in view of the already very long course of the disease. Since this girl, as has already been mentioned, also had an infection of the maxillary sinus, the possibility of an anamnestic rise in titre should be borne in mind. The blood sedimentation, at 3/9 mm, was completely normalized. After a stay of four weeks at the clinic the girl could be sent

None free of symptoms. -- Chickens kept at her home must be regarded as a likely source of infection in this case.

As we were able to determine from our observational material, neither the protracted symptoms of illness (case 3) nor the pulmonary changes detected early (cases 1 and 2) led at first to assumption of any specific disease. As all our patients were tuberculin-negative, we succeeded in eliminating suspicion of tuberculosis in a short time. But in the case of tuberculin-positive children, in view of the very polymorphous X-ray indications, the always accelerated blood sedimentation reaction, and the general accompanying symptoms, great difficulties would be encountered in diagnosis. We should therefore recommend doing the CFR test for ornithosis as far as possible as a routine measure in doubtful cases before carrying out tuberculostatic therapy. The Wassermann reaction, which according to the literature (Brand and Lippelt) is positive in about 1/4 of ornithosis cases, was negative in all our patients.

Summary (printed in English)

Report of 3 cases of ornithosis involving mainly the lungs in children. There was a marked discrepancy between the paucity of clinical symptoms (temperature afebrile, lassitude, slight cough and uncharacteristic findings) and the marked Roentgen findings. It is suspected that due to the atypical, clinically unapparent course of the disease a majority of cases go unrecognized, since this diagnosis is only rarely established during childhood.

Therapy (Sigamycin, Tetracyclin) soon led to the disappearance of the slight symptoms. Even the sedimentation rate -- initially markedly elevated -- rapidly returned to normal. There was also a fast return to normal radiologic findings in the lungs. No influence could be detected, however, on the CFR (complement-fixation reaction). Subsequent to antibiotic therapy two cases still showed a rise in titre, and in the third no influence on the titre could be determined. The Wassermann reaction remained negative in all three cases.

Bibliography

- Brand, C., and Lippelt, H., Archiv für Virusforschung (Archives of Virus Research), Vol 6, page 65, 1955.
- Breton, A., Gendier, B., Voisin, C., and Foncont, M., Archives Françaises Pédiatriques (French Pediatric Archives), Vol 15, pages 268-275, 1958.
- Gardborg, O. and Lerche, Ch., Nord. Med. (Scandinavian Medicine), Vol 55, pages 592-594, 1956.
- Grumbach, A. and Kikhuth, W., Die Infektionskrankheiten des Menschen und Ihre Erreger (Infectious Diseases of Man and Their Causal Organisms), Vol II, Thieme-Verlag, Stuttgart, 1958.
- Heim, L., Kinderärztliche Praxis (Pediatric Practice), Vol 27, pages 51-57, 1959.
- Lepine, P. and Sautter, V., Bulletin de l'Académie Médicale de Paris (Bulletin of the Paris Academy of Medicine), 1951, page 332.
- Meyer, K.F., The Psittacosis-Lymphogranuloma Group, J.B. Lippincott Company, Philadelphia, London, Montreal, 1952.
- Meyer, K.F. and Eddie, B., Journal of the American Medical Association, Vol 133, page 822, 1947.
- Müller, P. and Mansweiler, E., Österreichische Zeitschrift für Kinderheilkunde

(Austrian Journal of Pediatrics), Vol 3, pages 269-284, 1958.
Simon Bernon, Freundlid, E., Glaser, K., Abrahamov, A., Ephrati-Elizur, E.,
and Bernkopf, H., Pædiatrics, Vol 15, pages 752-760, 1955.
Strobel, W., Deutsche Medizinische Wochenschrift (German Medical Weekly), Vol
79, pages 176-178, 1954.
Winsser, J., Leeuwenhoek, Vol 15, page 86, 1949.
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